UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,722	09/12/2003	John M. Koegler III	200315232-1	8307

22879 7590 05/23/2008

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
LAMB, CHRISTOPHER RAY	
ART UNIT	**PAPER NUMBER**
2627	

NOTIFICATION DATE	DELIVERY MODE
05/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary	Application No.	Applicant(s)	
	10/661,722	KOEGLER ET AL.	
	Examiner	Art Unit	
	Christopher R. Lamb	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-4,6-22 and 24-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-4,6-22 and 24-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2, 4, 7, 8, 13, 16, 21, 22, and 24-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda (US 2002/0191517) in view of Klein (US 6,145,368), and further in view of Satoh (US 5,119,363).

The claims are addressed in order of dependency rather than numerical order.

Regarding claim 21:

Honda discloses:

An optical disk drive (Fig. 6), comprising:

a spindle motor to turn an optical disk (Fig. 6: 56);

an OPU to apply an image to a coating within a label region of the optical disk (Fig. 6: 67).

Honda does not disclose:

an encoder configured to track substantially identical disk speed features in a first annular ring at a first radial position on the optical disk in a region distinct from the label region so as to thereby obtain disk speed data, the disk drive further configured to track disk angular orientation features different from the disk speed features in a second annular ring at a second radial position on the optical disk so as to thereby obtain

angular orientation data, the second annular ring abutting the first annular ring, the disk angular orientation features different from the disk speed features, and at least some of the disk angular orientation features having the same angular position as at least some of the disk speed features.

However, Honda does disclose tracking the disk speed (paragraph 37) and angular orientation (paragraph 38).

Klein discloses:

an encoder (the encoder is shown in Fig. 1A, but the specific embodiment relied upon is that of Fig. 2) configured to track substantially identical disk speed features in a first annular ring at a first radial position on a disk (Fig. 2: 104) so as to thereby obtain disk speed data (column 1, lines 25-45), the disk drive further configured to track disk angular orientation features different from the disk speed features in a second annular ring at a second radial position on the optical disk (Fig. 2: 102) so as to thereby obtain angular orientation data (column 1, lines 24-45), the disk angular orientation features different from the disk speed features (apparent from Fig. 2), and at least some of the disk angular orientation features having the same angular position as at least some of the disk speed features (apparent from Fig. 2).

It would have been obvious to one of ordinary skill in the art to include in Honda an encoder configured to track substantially identical disk speed features in a first annular ring at a first radial position on the optical disk in a region distinct from the label region so as to thereby obtain disk speed data, the disk drive further configured to track disk angular orientation features different from the disk speed features in a second

annular ring at a second radial position on the optical disk so as to thereby obtain angular orientation data, the disk angular orientation features different from the disk speed features, and at least some of the disk angular orientation features having the same angular position as at least some of the disk speed features.

The motivation would be to measure the disk speed and angle directly from the disk itself, improving measurement accuracy.

Honda in view of Klein does not disclose:

(A) "the second annular ring abutting the first annular ring."

(B) "the annular rings proximate a central hub of the disk"

Regarding (A):

It would have been obvious to one of ordinary skill in the art to include in Honda in view of Klein wherein the second annular ring abuts the first annular ring.

The rationale is as follows:

Whether the first annular ring abuts the second annular ring makes no difference to its purpose: the speed and angular tracking works no better or worse whether the rings abut or not.

Furthermore, the applicant's specification, as originally filed, does not disclose any benefit or reason to have the rings abut one another. Applicant merely discloses embodiments where they abut (as per Fig. 1) and other embodiments where they do not (as per Fig. 2).

It has been held (see, e.g., *In re Japikse,* 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)) that shifting the position of a part is obvious when it does not modify the

operation of the invention. Therefore shifting the position of the annular rings of Honda in view of Klein so that they abut would have been obvious to one of ordinary skill at the time of the invention.

The motivation to abut the rings could have been aesthetic (one of ordinary skill might believe adjacent rings are more visually appealing), or to maximize space on the disc (two abutting rings consume less space than two rings spaced apart).

Regarding (B):

Satoh discloses wherein an annular ring used to track disc speed data and disc angular orientation data is proximate a central hub of the disk (Fig. 8; column 6, lines 2-25).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein where the annular rings are proximate a central hub of the disk.

The rationale is as follows:

Honda in view of Klein discloses the rings; Satoh shows putting rings proximate the central hub is a known technique; and one of ordinary skill could have combined these two teachings together with predictable results.

Regarding claim 2:

In Honda in view of Klein, and further in view of Satoh, the encoder is additionally configured to track the disk angular orientation features, the disk angular orientation features molded within the region distinct from the label region (the two light emitting and light receiving devices taught by Klein Fig. 1 together constitute “the encoder”).

Regarding claim 4:

Honda in view of Klein, and further in view of Satoh, discloses a control procedure to coordinate disk speed data from the encoder with the OPU during application of the image (Honda discloses coordinating the disk speed signal with the optical pickup in paragraph 37).

Regarding claim 24:

Honda in view of Klein, and further in view of Satoh, does not disclose "wherein the first radial position is nearer the central hub of the disk than the second radial position."

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein, and further in view of Satoh, wherein the first radial position is nearer the central hub of the disk than the second radial position.

The rationale is as follows:

Which of the two annular rings is closer to the central hub of the disk makes no difference to its purpose: the speed and angular tracking work no better or worse no matter which ring is inside or outside.

Furthermore, the applicant's specification, as originally filed, does not disclose any benefit or reason to have one ring inside the other.

It has been held (see, e.g., *In re Japikse,* 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)) that shifting the position of a part is obvious when it does not modify the operation of the invention.

In this case there are only two possibilities: the first radial position is inside the second, or the second radial position is inside the first. With only two combinations, both solutions would have been obvious to one of ordinary skill in the art, and one of ordinary skill could have pursued the solution wherein one ring is inside the other with a reasonable expectation of success.

Therefore shifting the position of the annular rings of Honda in view of Klein, and further in view of Satoh, so that the first radial position is nearer the central hub of the disk than the second radial position, would have been obvious.

Regarding claim 27:

Honda in view of Klein, and further in view of Satoh, discloses wherein the location of the annular rings on the optical disk maximizes the size of a continuous area of the label region (since the rings abut, as discussed above, and are proximate the central ring of the disc, as discussed above, the continuous area of the label region is maximized).

Regarding claim 28:

Honda in view of Klein, and further in view of Satoh, discloses wherein the label region has a ring shape that extends from an inner radial position to an outer radial position, and wherein at least one of the first and second radial positions is closer than the inner radial position to the central hub (originally in Honda the label region was the entirety of the disc: since the added rings abut and are proximate the central ring of the disc, as discussed above, the remaining label region is this shape).

Regarding claim 33:

Honda in view of Klein, and further in view of Satoh, discloses wherein the label region has a ring shape that extends from an inner radial position to an outer radial position, and wherein the first and second radial positions are closer than the inner radial position to the central hub (originally in Honda the label region was the entirety of the disc: since the added rings abut and are proximate the central ring of the disc, as discussed above, the remaining label region is a ring and the first and second positions must be inside it).

Regarding claims 22, 25, 29, and 30:

These claims are similar to earlier claims except that they are claims to a processor-readable medium. Honda discloses a processor-readable medium (required by the system controller and/or host computer of Fig. 6). All other elements of these claims have already been identified in earlier rejections.

Regarding claim 7:

This claim is similar to claim 2 and similarly rejected.

Regarding claim 8:

In Honda in view of Klein, and further in view of Satoh, the controlling comprises instructions for processing the disk speed data to determine times when the speed of the spindle motor should be increased and times when the speed of the spindle motor should be decreased to maintain desired speed (Honda paragraph 37: “a spindle servo circuit controls…the spindle motor so as to rotate constantly at a rotating speed”).

Regarding claims 13, 16, 26, 31 and 32:

All elements positively recited have already been identified with respect to earlier claims. No further elaboration is necessary.

3. Claims 3, 6, 9, 11, 12, 14, 15, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Klein, and further in view of Satoh, as applied to claim 21 above, and further in view of Osborne (US 5,107,107).

Regarding claim 3:

Honda in view of Klein, and further in view of Satoh, discloses an optical disk drive as discussed above.

Honda in view of Klein, and further in view of Satoh, does not disclose wherein the OPU is additionally configured to track the disk angular orientation features, the disk angular orientation features defined within the label region.

In Honda in view of Klein, and further in view of Satoh, light from an encoder passes through slits in a disk and is measured on the other side. This is a transmissive scheme.

Osborne discloses that a reflective scheme may be used in place of a transmissive scheme (column 6, lines 1-10). Osborne discloses that an encoder may still be used with this scheme, but that the light source of an optical disk drive (an OPU) is superior (column 11, lines 25-60).

Therefore it would be obvious to one of ordinary skill in the art to include in Honda in view of Klein, and further in view of Satoh, wherein the OPU is additionally configured to track the disk angular orientation features, the disk angular orientation features defined within the label region.

The motivation would be to use the OPU to track the disk angular orientation features instead of a conventional encoder: Osborne discloses that using an OPU overcomes the weaknesses of a conventional encoder.

Regarding claim 6:

This is similar to claim 3 and is similarly rejected.

Regarding claim 9:

In Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, the interpreting comprises instructions for distinguishing between a first and a second signal received from the encoder, wherein the first and second signal result from differences in light reflection correspond to the presence or absence of the disk speed features (taught by Klein, with the additional teaching of Osborne, as discussed above).

Regarding claim 11:

In Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, the interpreting comprises instructions for:

distinguishing between a first and a second signal received from the encoder, wherein the first signal results when light is reflected off a mirrored surface (taught by Osborne column 6 lines 1-10).

Honda in view of Klein, and further in view of Osborne, does not disclose wherein "the second signal results when light is reflected by a substantially circular molded pit that also deflects a portion of the light away from the sensor."

However, Osborne discloses that in an optical disc information can be indicated through a substantially circular molded pit that also deflects a portion of the light away from the sensor (column 8, lines 35-50).

It would have been obvious to one of ordinary skill in the art to include in Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, wherein the second signal results when light is reflected by a substantially circular molded pit that also deflects a portion of the light away from the sensor, as further taught by Osborne.

The rationale is as follows:

Using substantially circular molded pits to indicate information by monitoring a reflected light signal is the fundamental premise of all optical recording media, as disclosed by Osborne. Therefore one of ordinary skill in the art could certainly have created substantially circularly molded pits to create the signal required by Honda in view of Klein, , and further in view of Satoh, and further in view of Osborne, with predictable results.

Regarding claim 12:

In Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, the interpreting comprises instructions for:

distinguishing between the output signals, wherein the output signal are associated with levels of light reflectivity (taught by Osborne as discussed above) within a region defined on a mirror surface (it must be mirrored if it is reflective) adjacent to the

coating on the label side of the disk (the entire operation takes place on the label side of the disc as taught by Honda).

Regarding claim 14:

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, discloses an optical disk drive as discussed above.

Honda in view of Klein, and further in view of Osborne discloses means for tracking, with an OPU, disk angular orientation data defined by disk angular orientation features; and

Honda in view of Klein, and further in view of Osborne, does not disclose means for passing the disk angular orientation data to the means for labeling to create an image having a desired angular orientation on a coating on the optical disk.

It would have been obvious to one of ordinary skill in the art to include in Honda in view of Klein, and further in view of Osborne, means for passing the disk angular orientation data to the means for labeling to create an image having a desired angular orientation on a coating on the optical disk (already implied by Honda paragraph 38).

The motivation would have been to print an image having a desired orientation to a reference position (this motivation is already present in Honda paragraph 38, but Honda itself did not disclose means to accomplish it).

Regarding claim 15:

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, discloses wherein the disk angular orientation features are molded features (Osborne column 6 lines 1-30) located radially inside an area on the optical disk

reachable by an OPU, to produce the disk angular orientation data (taught by Osborne as discussed above).

Regarding claims 17, 19, and 20:

All elements positively recited have already been identified with respect to earlier rejections. No further elaboration is necessary.

4. Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Klein, and further in view of Satoh, and further in view of Osborne as applied to claim 3 above, and further in view of Nagashima (US 5,670,947).

Regarding claim 10:

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, discloses a processor-readable medium as discussed above.

In Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, the interpreting comprises instructions for:

distinguishing between a first and a second signal received from the encoder, wherein the first signal results when light is reflected off a mirrored surface to a sensor (taught by Osborne as discussed above).

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, does not disclose wherein "the second signal results when light is reflected by a saw tooth feature that also deflects a portion of the light away from the sensor."

However, Osborne does teach that one surface should reflect light back to the sensor and the other should not (column 6, lines 5-50).

Nagashima discloses a saw tooth feature that deflects a portion of light away from a sensor (column 3, lines 29-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, wherein the second signal results when light is reflected by a saw tooth feature that also deflects a portion of the light away from the sensor.

The rationale is as follows:

Osborne discloses detecting the presence of absence of a reflected signal with a sensor. Nagashima discloses a method of deflected a reflected signal so that a sensor does not detect. One of ordinary skill could have combined these two elements together with predictable results.

Regarding claim 18:

All elements positively recited have already been identified with respect to earlier rejections. No further elaboration is necessary.

Response to Arguments

5. Applicant's arguments filed January 27th, 2008 have been fully considered but they are not persuasive.

Applicant makes numerous arguments. Each will be addressed in turn.

First, the Examiner had argued that it was obvious to shift the position of the rings of Honda in view of Klein because their position did not affect the operation of the device. In response, Applicant argues that shifting the position of the angular rings of

Klein and Honda would modify the operation by "changing the size of the continuous, uninterrupted area of the label region on the optical disk."

Applicant goes on to argue that the larger the label region, the more text, graphics, and/or image information can be written to it.

These arguments are not persuasive for several reasons.

First, whether the label region has a continuous, uninterrupted area, or one discontinuous is merely an aesthetic choice. The operation of the invention (i.e., the ability to track speed and/or angle of the disc) does not change whether the label region is continuous or not.

Secondly, the difference in usable area between a label region where the rings are abutting and proximate the central ring and one where they are not is marginal. Applicant does not disclose printing large amounts of information on the label side of the disc: indeed the drawings only show a few words written on the label side. Those few words could be written whether the rings abut or not, and whether they are proximate the central rim or not. Again, the operation of the device is unchanged.

Third, Applicant's argument that abutting rings maximizes the continuous space for a label would have been obvious to one of ordinary skill in the art at the time of the invention. This argument was not disclosed in Applicant's original specification: Applicant is merely arguing it now based upon common sense. Certainly one of ordinary skill in this highly technical field would have been aware that two abutting rings take up less space than two separated rings, and could have moved the rings with predictable results. This element is neither so technically complicated nor so radical as to require

"hindsight reasoning" to achieve, and therefore Applicant's own argument provides even more motivation for modifying Honda in view of Klein.

Applicant continues to argue that "the image quality of the writing would undesirably suffer because of the visual discontinuity in the writing." Again, this is a matter of aesthetics: one person might consider a continuous label region to be prettier, and one might consider a discontinuous label region to be prettier. It has nothing to do with whether the apparatus can track the speed and/or angle.

Applicant continues this argument by stating "the degradation of image quality is well known to be an important consideration to users of visual matter of all kinds." If this is a well known fact, than again, this only provides further motivation to modify Honda in view of Klein in this way. Since moving the rings does not require any further engineering modification, it is certainly within the level of ability of one of ordinary skill in the art.

Applicant next argues that the Examiner did not provide a motivation or reason to abut the rings of the Klein reference. To clarify this issue, the motivation has been more clearly discussed in the rejection above, and additionally, Applicant's own arguments provide plenty of motivation. Applicant cannot seriously be contending that positioning two items next to one another on a disc would never occur to one of ordinary skill.

Next, Applicant argues that repositioning the rings of Klein would result in an inoperative device. Applicant argues that the disk of Klein is much smaller than a CD or DVD, positioning the rings on the inner hub would reduce the number of openings and diminish the resolution and accuracy of the measurements.

However, in the combination relied upon, the rings of Klein have been added to the optical disc of Honda. Since the optical disc of Honda is a CD or DVD, and therefore larger than the original disc taught by Klein alone, positioning the rings on the inner hub would not cause a detrimental affect. Furthermore, even if the resolution and accuracy were reduced, the combination would still function -- it wouldn't be inoperative, as Applicant argues.

Applicant next argues that Satoh "teaches away from the combination." Applicant argues at length about the grooves in the tracks in Satoh. However, since Satoh was only relied upon to teach positioning an annular ring proximate the central hub of the disc, this argument is irrelevant: none of the details of Satoh that Applicant argues about have anything to do with the combination used to reject the claims.

Applicant next applies their earlier arguments to claims 13, 22, etc.: since they were not found persuasive, their application to these claims is not found persuasive either.

Applicant next argues, with respect to claim 24, that it is not obvious to reposition the two rings of Klein so that the speed features are inside the angular features. Applicant argues that there is an advantage gained from the claimed positions: i.e., maximizing the size of the label region, and references part of the specification to support this point.

However, these sections of the specification do not support the argument: they merely say that the two rings could be positioned somewhere that can be read by an encoder rather than OPU, but which ring is outside the other makes no difference to this

argument. Moreover, with only two possibilities: ring A outside ring B, or ring B outside ring A, there is no possible way whatsoever that it would not occur to one of ordinary skill that the two could be switched.

Applicant finally makes a few generic arguments about "impermissible" use of hindsight with regards to the remaining rejections.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (571) 272-5264. The examiner can normally be reached on 9:00 AM to 5:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph H. Feild/
Supervisory Patent Examiner, Art Unit 2627

CRL 5/12/08